UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/854,919 | 05/15/2001 | Karl-Heinz Baumann | 225/49907 | 7559 |

7590 09/29/2003

CROWELL & MORING LLP
Intellectual Property Group
P.O. Box 14300
Washington, DC 20044

| EXAMINER |
|---|
| DUONG, THO V |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3743 | |

DATE MAILED: 09/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/854,919 | BAUMANN ET AL. | |
| | Examiner | Art Unit | |
| | Tho v Duong | 3743 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *15 May 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7,9-11,13,15-17 and 19* is/are rejected.

7)☒ Claim(s) *6,8,12,14 and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

## DETAILED ACTION

### *Claim Objections*

Claim 1 is objected to because of the following: the claim has been translated from a foreign application, it does not conform to US application format. It is not clear if applicant is claiming "a passage orifice for a cooling-air stream" is a substructure of the heat exchanger arrangement or of the front carrying structure of a motor vehicle. Applicant is suggested to use a transitional phrase such as comprising, having, or consisting of...etc to positively recite the metes and bounds of protection. (See claim 13) Appropriate correction is required. The examiner assumes applicant is claiming that the passage orifice is a substructure of the heat exchanger assembly similar to claim 13.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,4-5,10,11,13,15-17 and 19 rejected under 35 U.S.C. 102(b) as being anticipated by E. G. Zeeb (US 2,715,448). Zeeb discloses (figures 1-5) a heat exchanger assembly on a front carrying structure (20,22,26,58) of a motor vehicle comprising a front wall (58) having a middle cut out region of a passage orifice (68) for a cooling-air flow extending in a transverse plane; a radiator (56) approximately overlapping the passage orifice (68); the front wall region (58) of the front carrying structure having at least two mutually facing side wall regions (60,62,64,68)

delimiting the passage orifice (68); and wherein the heat exchanger module (56) has two mutually opposite end regions (122) projecting beyond the passage orifice (68) and operatively connected to the front wall (58) through a support member (100); and the front wall (58) having further assemblies (44,48) mounted on and arranged in front of the front wall by bolts (74). As regarding claims 1 and 17, the functional recitation that in the event of a head-on collision, the heat exchanger module while absorbing impact energy, co-operates reinforcingly with the wall regions of the carrying structure, has not been given patentable weight because it is narrative in form. In order to be given patentable weight, a functional recitation must be expressed as a "means" for performing the specific function, as set forth in 35 USC 112, 6th paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. In re Fuller, 1929 C. D. 172; 388 O. G. 279. Furthermore, Zeeb discloses (figure 4) that the heat exchanger module (56) and the front wall (58) are connected together by welding and fasteners (124,126,128) and placed on the front end of the car. Therefore, in a head-on collision, it is inherently that, both the front wall and the heat exchanger module (56) belong to a deformable zone of the car and they both absorb impact energy and reinforcingly co-operate with each other since they are connected together. As regarding claim 5, the front wall (58) is made out of sheet metal. Therefore it is considered to be a light-weight wall. The method of forming the device "an extruded profile" is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given no significant patentable weight since claim 5 is an apparatus claim and that the front wall (58) is similar to the claimed front wall. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its

method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). MPEP 2114. As regarding claims 17 and 19, since the heat exchanger assembly of Zeeb is the same with the claimed heat exchanger assembly, it is believed that the method of making the heat exchanger assembly is similar to the claimed method of making the claimed heat exchanger assembly.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-3, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zeeb in view of Ikeda et al. (US 5,271,473). Zeeb substantially discloses all of applicant's claimed invention as discussed above except for the limitation that heat exchanger module is arranged in front of the passage orifice and a further heat exchange module is arranged in a region of overlap with the heat exchange module. Zeeb further discloses (figures 1,2 and 5) that the front wall region (58) of the front carrying structure having at least two mutually facing side wall regions (60,62,64,68) delimiting the passage orifice (68); and wherein the radiator (56) has two mutually opposite end regions (122) and upper, lower headers (118,130) projecting beyond the passage orifice (68). It is considered that the opposite end regions (122) and upper and lower headers (118,130) overlap at least partially the wall regions (58) since these end regions and the headers

project beyond the passage orifice (68), which is delimited by the wall regions. As regarding the limitations of "the heat exchange module is arranged in front of the passage orifice" and "a further heat exchange module", it is well known in the automobile art that an assembly of a radiator and condenser is positioned in front of the engine compartment. Attention is now directed to Ikeda. Ikeda discloses (figure 2 and column 1, lines 12-52 and column 3, line 60-column 4, line 2) a heat exchanger module assembly that has an assembly of a radiator (17), which is to cool engine coolant and a condenser (18), which is provided for air conditioning system, positioned in front of a passage orifice, which is formed within a front wall regions (15) of the carrying structure, to allow an easy access to the heat exchanger assembly when it is time to replace or to repair the heat exchange assembly. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Ikeda's teaching in Zeeb's heat exchanger assembly arranged on the front carrying structure of a motor vehicle to allow an easy access to the heat exchanger assembly when it is time to replace or to repair the heat exchanger assembly and to equip the vehicle with an air conditioning system. As regarding claim 7, it has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138. Zeeb discloses (figures 2 and 4) that the support member (100) having a pair of legs (102) in form of a groove, and the radiator (56) has the projecting ends (122) appears to be the same size with the depth of the groove. Therefore, the radiator (56) is instead of secured to the front wall (58) by attaching the projecting ends (122) on a side of the groove of parallel legs (102), the radiator is capable of (emphasis added) of being

pushed in a manner of a drawer with projecting ends (122) into the groove as a sliding guide of the wall region and being secured in a pushed-in position via fixing elements (126).

***Allowable Subject Matter***

Claims 6, 8,12,14 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art either taken singularly or in combination does not disclose that sliding guides are produced in on part with a front wall (as recited in claim 8) or the proximity end regions and the associated sliding guides form a tongue and groove arrangement (as recited in claim 12) or positively recitation of sliding guides of the front wall (as recited in claim 14) or that the heat exchanger module are fastened to the carrying structure approximately over an entire longitudinal extent of the end regions as recited in claims 6 and 18.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hamada et al. (US 4,141,426) discloses support assembly for radiator and air conditioning condensers.

Tenhundfeld et al. ( US 4,951,737) discloses a modular blower and heater assembly for air conditioner.

Girardot et al. (US 5,658,041) discloses an over molded plastic- metal motor vehicle front body panel.

Schwerzler et al. (US 4,821,828) discloses a heat exchanger assembly positioned in the front of a car.

Tepas et al. (US 5,671,803) discloses a modular condenser and fan shroud assembly.

Nakamura (US 5,875,836) discloses a sliding guide of a heat exchanger to fit a fan shroud.

Latcau (US 6,450,276) discloses a modular vehicle front end.

Marcello et al. (EP 0178266) discloses a motor vehicle including a preassembled subassembly formed the power unit and a series of components of the system of the vehicle.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tho Duong whose telephone number is (703) 305-0768. The examiner can normally be reached on from 9:30-6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennet, can be reached on (703) 308-0101. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7764.

Any inquiry of a general nature or relating to status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0861.

TD

Tho Duong

TD

Patent Examiner

September 17, 2003